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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,899	09/04/2001	Ullrich Wunsche	P01,0281	6028
29177	7590	04/06/2005	EXAMINER	
BELL, BOYD & LLOYD, LLC			PHAN, HANH	
P. O. BOX 1135			ART UNIT	
CHICAGO, IL 60690-1135			PAPER NUMBER	
			2633	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/914,899	Applicant(s) WUNSCH ET AL.	
	Examiner Hanh Phan	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to Amendment filed on 09/10/2004.
2. The indicated allowability of claim 5 is withdrawn in view of the newly discovered reference(s) to Satoh (US Patent No. 6,091,535). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Satoh (US Patent No. 6,091,535).

Regarding claims 1 and 6, referring to Figures 1, 3 and 4, Satoh discloses an arrangement for optimizing an amplitude-modulated optical signal, comprising:

a light source (i.e., laser light source 1, Fig. 1);

a modulator (i.e., Mach-Zehnder modulator 2, Fig. 1) having an output, the modulator (2) being fed an optical signal from the light source (1) and a digital signal (Si) for amplitude modulation (col. 3, lines 8-24);

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a frequency discriminator (i.e., photodetector 4, Fig. 1) which outputs a spectral distribution signal that connected to the output of the modulator (2) via a splitter (3)(col. 3, lines 47-60);

a control device (i.e., divider 7, amplifier 8, reference voltage generator 10, Fig. 1) with a reference signal setting device (i.e., reference voltage generator 10 generates a reference signal) which is fed the spectral distribution signal and which generates a control signal (S8) which controls an operating point of the modulator (2)(col. 4, lines 7-67 and col. 5, lines 1-34).

Regarding claim 2, Satoh further teaches the step of separating (i.e., optical coupler 3, Fig. 1) a measuring signal which is fed to the frequency discriminator (4) from the amplitude-modulated optical signal.

Regarding claim 3, Satoh further teaches determining the spectral distribution signal at a start of a transmission path and setting the reference signal based on properties of the transmission path (col. 6, lines 25-67 and col. 7, lines 1-40).

Regarding claim 4, Satoh further teaches determining the spectral distribution signal at a receiving end and transmitting the spectral distribution signal or a control signal generated therefrom to the modulator provided at a transmitting end (Fig. 15, col. 5, lines 35-45 and col. 8, lines 22-61).

Regarding claim 7, Satoh further teaches an adder (Fig. 1) which is fed the control signal (S8) and the digital signal (S6), an adder output (Vm) being fed to a modulation input of the modulator (2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (US Patent No. 6,091,535).

Regarding claim 5, although Satoh does not specifically teach the control signal is obtained during periodically occurring time windows. However, Satoh a lowpass filter is inserted between the divider 7 and switch 9 to ensure that the signal received by operational amplifier 8 reflects the average output power of the Mach-Zehnder modulator 2 (col. 7, lines 45-48). Therefore, it would have been obvious to obtain the control signal is obtained during periodically occurring time windows in order to select the bias voltage signal supplied to the modulator and to compensate for DC drift in the the attenuation characteristic of the modulator.

Response to Arguments

7. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

A handwritten signature in black ink, appearing to read 'Hanh Phan', with a stylized, cursive script.

**HANH PHAN
PRIMARY EXAMINER**